THE NAME TETRASTICHUS INCERTUS (RATZEBURG) AS EMPLOYED FOR AN INTRODUCED PARASITE OF THE ALFALFA WEEVIL, HYPERA POSTICA (GYLLENHAL)

(HYMENOPTERA: EULOPHIDAE)

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ABSTRACT—A defense of the use of the name *Tetrastichus incertus* (Ratzeburg) for an imported parasite of the alfalfa weevil in North America is presented.

In his Notes on Tetrastichini, Kurdjumov (1913) briefly recharacterized *Eulophus incertus* Ratzeburg and transferred it to the genus *Tetrastichus*. It is known that Kurdjumov studied the Ratzeburg collection, but it is not known that he saw the type of the species *incertus*. It is probable that he did, but it is not certainly so.

In 1922 a Tetrastichus parasite of the alfalfa weevil was collected in Italy for importation into the United States. Specimens of it were submitted to A. B. Gahan, and he, using Kurdiumov's paper and Ratzeburg's original description, identified it as T, incertus (Ratzeburg), Part of this original series is still in the U.S. National Museum collection. Mr. Gahan himself studied the Ratzeburg collection in 1927, but by then the type of *incertus* was missing. He continued to identify this parasite of the alfalfa weevil as *incertus* Ratzeburg in subsequent lots, and sample specimens from most of these are preserved in the U. S. N. M. collection. After Mr. Gahan's retirement in 1951, other taxonomists continued to apply the name *incertus* to this parasite, in almost all cases retaining specimens for the collection. This has continued up to the present. Consequently the usage of the name incertus in North America is thoroughly documented by reference material in the U.S.N.M. The name certainly has been applied to only one species in North America.

During the time since its introduction into North America, the name *incertus* has been used consistently in North American publications for the same parasite of the alfalfa weevil. This has been in literature published from 1924 (Chamberlin) to the present (Horn 1970, Mailloux and Pilon 1970).

The taxonomy of this species has, however, become confused. Erdös (1954) redefined the species he identified as *incertus* Ratzeburg and designated it type-species of the genus *Baryscapus* Foerster. The latter action was, of course, invalid since another species had long since been

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legitimately designated type-species of *Baryscapus* (Gahan and Fagan 1923). Nevertheless, the characters Erdös gave for the species *incertus* are in agreement with those of the male of the species that is being identified as *incertus* in North America. There is no conflict here about the identity of the species *incertus* Ratzeburg. There is material of *incertus* determined by Erdös in the U. S. National Museum.

Domenichini (1965), however, attempted to make a distinction between the *incertus* of Ratzeburg and *incertus* of Erdös. He declared that *incertus* Ratzeburg was a *nomen dubium*. He did this because the type was lost, the original description was brief, and the name, in his opinion, had probably been applied to diverse species by North American authors.

He then declared that incertus of Erdös was a "good species" and renamed it Tetrastichus erdoesi Domenichini. This name is nomenclatorially available through having a bibliographic reference to Erdös's paper. But the *incertus* of Erdös is only the male of the species that is being identified as incertus in North America. In a later publication, Domenichini (1966) rejected all usage of incertus, stating that incertus Ratzeburg was not the incertus of American authors nor of Erdös. Yet it cannot be demonstrated that *incertus* has been misidentified by either the American authors or Erdös. The species called incertus by Kurdjumov, by Mr. Gahan and other American taxonomists, and by Erdös is in fact the same species, and it certainly agrees with the original description and with specimens from Germany that are in the U. S. National Museum. Further, Kurdjumov's characterization may have been based on a study of the type. At any rate Kurdjumov's characterization of the species incertus has been followed consistently from 1913 to the present, and a large volume of literature has accumulated using this name.

Domenichini's other reasons for rejecting the name *incertus* are not serious objections. The fact that a type is missing is not enough in itself to cause a species name to be discarded. Thousands of species for which no types exist are now being recognized. Brevity in a description is, also, not a legitimate reason for rejecting a species name. The descriptions of many well known species are extremely short. And it cannot be demonstrated that the name *incertus* has been applied to diverse species, at least during the last 50 years here in North America. The name *incertus* has been applied to only one species, with that usage abundantly documented by preserved specimens.

In view of the fact that the name *Tetrastichus incertus* (Ratzeburg) is in agreement with the original description and has been consistently applied to a single species of parasite of the alfalfa weevil in North America for a period of almost half a century and that this name has been used in publications on biological control of the alfalfa weevil for

almost as long a period, North American workers should not abandon it. Instead they should consider *T. erdoesi* Domenichini a synonym.

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AN ANNOTATED CHECK LIST OF COSTA RICAN COCKROACHES (Dictyoptera: Blattaria)

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ABSTRACT—This check list of Costa Rican cockroaches gives specific locality records for all but the most abundant species. It also notes, for most collection records, where the actual specimens are housed. Twenty-nine species are recorded for Costa Rica for the first time. The total list includes 115 named species or subspecies plus 35 new or unidentified species which are not named.

Recent interest in the fauna and flora of Costa Rica, stimulated in part by the activities of the Organization for Tropical Studies, has made the publication of taxonomic studies relating to that Central American country particularly desirable. Previous to the present paper the most recent listing of Costa Rican cockroaches was included in the notes on Orthoptera by Rehn (1905), in which 38 species were recorded. In an earlier report Biolley (1900) listed 35 valid species, a remarkable increase over the 12 cockroach species noted by Tristán (1896).